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(AC) Author's(s) Closure  
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**Hamming, Kenneth W.** elected Fellow ASME D 81

**Hampton, Robert K.** elected Fellow ASME JI 76

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**Harper, E. Y.**  
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**Harper, John D.** elected Fellow ASME F 102; receives Fellow ASME certificate Je 79; elected member of National Academy of Engineering..... Je 77

**Harper, William Z.** named assistant manager of field and shop divisions and Ridge Construction Co. by Kodak Park Division, Eastman Kodak Co..... Ja 105

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Heat Transfer Conference Best Paper Award See Honors

Heat Transfer Division Memorial Award See Honors

Heat Transfer Research Inc. (HTRI) Design and Operation of Large-Scale Process Heat-Transfer Research Plants [70-WA/HT-21] (A).....Ap 60

Heat Transport LMFBR Fuel Shipping—Containment and Heat Transport [71-NE-6] (A).....JI 42

Heat Treating Big Vacuum Furnace (PB).....Je 36, 37

Effect of Heat Treatment of the Properties of 3½ Percent Nickel Steel [71-Pet-29] (A).....D 50

Heaters, Heating New Equipment Trends on Display at 30th International Air-Conditioning Exposition of ASHRAE, 1971.....Ap 71

Stress Analysis of High Temperature Pyrolysis Heater Coil Systems Subjected to Creep and Low Cycle Fatigue [71-Pet-17] (A).....D 49

Heath, W. C. deceased.....Ag 87

Heavy Water An Experimental Investigation of the Enthalpy of Saturated Heavy-Water Liquid [71-HT-M] (A).....N 59

Hecht, Irving A. promoted to position of general manager of Gasway Div., Chicago, Ill., of Wolverine-Pentronix, Inc. S 98

Hecker, H. C. deceased.....N 93

Hedrick, Charles L. appointed manager of operations for the Erie City Energy Div. of Zurn Industries, Inc. My 88

Heginbotham, W. B. An Analytical Model Predicting Fixed Index Assembly Machine Performance [71-Vibr-63] (A) N 53

Heinsohn, R. J. Flames, Ions, and Electric Fields [70-WA/Fu-4] (A).....F 75

Heiser, F. A. Anisotropy of Fatigue Crack Propagation [71-Met-G] (A).....Ag 48

Heitz, W. L. Critical Rayleigh Numbers for Natural Convection of Water Confined in Square Cells with L/D from 0.5 to 8 [70-WA/HT-7] (A).....Ap 59

Helfinstein, R. A. Potential Flow Past a Group of Circular Cylinders [71-FE-18] (A).....S 52

Wave Amplitude Study for Two-Phase Flow in a Horizontal Channel [71-FE-2] (A).....Ag 54

Helium Combined Helium and Steam Cycle for Nuclear Power Plants [based on 70-WA/NE-3] (A) Ap 14

Combined Cycle (C) (D) (AC) N 61

A Combined Helium and Steam Cycle for Nuclear Power Generation [70-WA/NE-3] (A) My 55

Helices Basic Geometric Methods in Helical Lobe Compressor Design [70-WA/FE-23] (A).....F 74

Evaluation of Angle to be Subtended by the Spiral of Semispiral Casings [70-WA/FE-18] (A) F 74

Heller, S. R., Jr. The Cost Effectiveness of Natural and Synthetic Fiber Ropes in the Marine Environment [70-WA/Unt-9] (A).....Je 46

Helmich, Melvin J. receives Diesel and Gas Engine Power Award at 1971 DGP Conference.....JI 66, 67

Helmick, Walter E. deceased.....Ja 107

Hemenway, Henry H. elected group vice-president of newly formed Environmental Systems Group, Carborundum Co. JI 74

Hemen, J. R. deceased.....D 83

Hemodynamics Hemodynamic Flow in Anisotropic, Viscoelastic Thick-Wall Vessels [70-WA/APM-50] (A) Je 49

Hemsworth, Martin C. elected Fellow ASME F 102

Hench, J. E. Two-Dimensional Diffuser Performance with Subsonic, Two-Phase, Air-Water Flow [71-FE-20] (A).....S 51

Henderson, J. P. The Effect of Stringer Width and Damping on the Response of Skin-Stringer Structures [71-Vibr-101] (A).....D 54

Hendricks, H. E. In-Service Inspection of San Onofre Nuclear Generating Station—Unit 1 [71-PVP-51] (A) S 48

Hendricks, R. C. Film Boiling Transition Temperature for Tissue Cooled with Liquid Nitrogen [70-WA/HT-16] (A).....Ap 60

Prediction of the Thermal Conductivity Anomaly of Simple Substances in the Critical Region [71-HT-28] (A).....O 63

**Henriksen, Erik K.** elected Fellow ASME My 89

**Henry, R. E.**  
The Two-Phase Critical Flow of One-Component Mixtures in Nozzles, Orifices, and Short Tubes [70-WA/HT-5] (A).....Ap 53

**Hering, R. G.**  
Transient Combined Conductive and Radiative Heat Transfer [71-HT-22] (A).....O 62

**Hering, Richard F.** named chief mechanical engineer of the American Electric Power Service Corp., N. Y. ....O 90

**Herrala, Thomas W.**  
Space Shuttle Environment Control and Life Support System [71-AV-16] (A).....O 56

**Hersh, Alan S.**  
Noise Abatement in Industry  
Noise Abatement and Its Control in the Petroleum Industries  
Refinery Flair System Injectors Redesigned for Noise Control [70-WA/Pet-4] (A) Ap 55

**Hertz, P. B.**  
Unconfined Elastomer Die Blanking (based on 71-Prod-6).....D 12  
Unconfined Elastomer Die Blanking [71-Prod-6] (A).....Jl 49

**Hertzberg, R. W.**  
Anisotropy of Fatigue Crack Propagation [71-Met-G] (A).....Ag 48

**Herzog, W. G.**  
Tracer Tests for Nuclear Power Plant Steam Turbines (based on 69-WA/PTC-3).....Ja 15

**Heskestad, G.**  
Two-Dimensional Miter-Bend Flow [70-WA/FE-1] (A).....F 71

**Hess (Henry) Award**  
See Honors

**Hester, J. Charles** named head of Clemson University's Mechanical Engineering Department.....Ap 85

**Heter, E. D.**  
Factors Affecting Design and Reliability of High Performance Gears in Process Compressor Trains [71-Pet-30] (A).....D 50

**Hetsroni, G.**  
Distribution of Mass, Velocity, and Intensity of Turbulence in a Two-Phase Turbulent Jet [70-WA/APM-45] (A).....Je 48

**Heuschkel, J.**  
Analysis of Cracks in Welded Elbows [71-PVP-32] (A).....Ag 53

**Heydt, G. T.**  
A Directed Random Search [70-WA/Aut-7] (A) F 69

**Heyward, Theodore C.** deceased.....Ja 107

**Hickman, K. E.**  
High Entrainment Ejector Design [71-FE-34] (A) S 52

**Hierath, Leonard L.** opens own office in Arvada, Colo., under the name Leonard L. Hierath/Engineering Consultants.....Ag 85

**Hietbrink, E. H.**  
Electric Storage Batteries for Vehicle Propulsion [70-WA/Ener-7] (A).....Ap 62

**Higgins, E. M.** deceased.....N 93

**High Speed Technology**  
See also Speed Technology; Velocity  
Advanced Design Concepts for High Speed Bearings [71-DE-50] (A).....Ag 47

**Highways**  
See Surfaces, Roads

**Hikido, K.**  
The Adaptability of LWR Quality Assurance Standards to the LMFB [71-NE-9] (A).....Jl 43

**Hilgartner, G. H.** deceased.....S 99

**Hill, John R.** appointed manager of tubing operations, Babcock & Wilcox Tubular Products Division, Beaver Falls, Pa. ....Ja 105

**Hill, M. J.**  
Analytical and Experimental Studies of Two-Dimensional Flows in a Radial Bladed Impeller [71-GT-20] (A).....Jl 36

**Hill, R. F.**  
Evaluation of Machinability and Machining Parameters of Cold Formed Steel Parts [71-DE-42] (A).....Ag 46

**Hillier, M. J.**  
Dynamic Expansion of an Open-Ended Tube [71-Met-K] (A).....S 54

**Yield Criteria and the Bauschinger Effect for a Plastic Solid [71-Met-P] (A).....S 55**

**Hilt, M. B.**  
Noise Abatement in Industry  
Gas Turbine Noise Abatement  
Formation and Measurements of Nitrogen Oxides in Gas Turbines [70-WA/GT-3] (A) Ap 56

**Reduction of Nitrogen Oxides from Gas Turbines by Steam Injection [71-GT-58] (A).....Ag 46**

**Hindhede, U.**  
Cold-Machining—An Investigation of the Mechanics of Metal Cutting as Affected by the

Workpiece Temperature in the Sub-Zero Range [70-WA/Prod-24] (A).....Mr 62

**Hinges**  
Large Sideward Deflections of Two-Hinged Circular Arches [71-DE-E] (A).....Jl 48

**Hironaka, M. C.**  
Site Surveying for Ocean Floor Structures [71-Unt-8] (A).....D 47

**Hirotsu, T.**  
Statistical Analysis of Adhesion Performance of Locomotives [70-WA/RR-8] (A).....Je 42

**History**  
National History and Heritage Committee established by ASME late in 1970 to identify mechanical engineering attainments of the past by designating landmarks, sites, machinery and other materials of historic interest, as well as such other tangibles suitable for the U. S. National Archives as drawings, old photographs, company records, and the recollections and reminiscences of engineers.....Ap 85

**Hitomi, K.**  
Optimization of Multistage Machining System: Analysis of Optimal Machining Conditions for the Flow-Type Machining System [70-WA/Prod-15] (A).....Mr 61

**Ho, H. T.**  
Hydrodynamic Characteristics of a Cambered Hydrofoil with a Jet Flap [71-APMW-17] (A) N 56

**Ho, Hwa-Shan**  
Limit Analysis for Combined Edge and Pressure Loading on a Cylindrical Shell [71-PVP-22] (A) Ag 52

**Shakedown in Elastic-Plastic Systems Under Dynamic Loadings [71-APMW-27] (A).....N 56**

**Hobbs, G. K.**  
Methods of Modeling and Analyzing Viscoelastically Damped Structures [71-Vibr-36] (A) N 51

**Hochheiser, R. M.**  
Noise Abatement in Industry  
Gas Turbine Noise Abatement  
Some Results of Fan/Compressor Noise Research [70-WA/GT-12] (A).....Ap 56

**Hochmuth, R. M.**  
Uniaxial Stretching of the Red-Cell Membrane [70-WA/BHF-12] (A).....Ap 64

**Hodge, Philip G., Jr.** becomes technical editor of Journal of Applied Mechanics.....Jl 72

**Hodges, J. L.**  
Nitric-Oxide Generation in a Simulated Spark-Ignition Engine [70-WA/PID-3] (A).....Mr 63

**Hodographs**  
A Family of Hodograph Models for the Crossflow Velocity Component of Three-Dimensional Turbulent Boundary Layers [71-FE-1] (A) Ag 54

**The Hodograph Transformation in Plastic Waves with Discontinuous Loading Conditions [71-APMW-12] (A).....N 55**

**Hockema, R. J.**  
Synthesis of a Four-Bar Linkage Adjustable for Variable Radius of Curvature of a Coupler Curve [70-Mech-80] (A).....Ja 54

**Hoffer, Arnold H.** appointed president of Dyna-Truck Div., Dynamics Corp. of America JI 74

**Hoffman, H. W.**  
Performance Characteristics of Corrugated Tubes for Vertical Tube Evaporators [71-HT-30] (A) O 63

**Hoffman, J. S.**  
Liquid Distributions of a Low Pressure Drop Injection System-Gas Turbine "Vaporizer" Design [71-GT-38] (A).....Ag 45

**Hofmann, R.**  
The Dynamic Response of Blast Shields and Barriades to Impulsive Loadings [71-PVP-48] (A).....S 48

**Hoge, K. C.**  
An Experimental and Numerical Study of Elastic Strain Waves on the Center Line of a 6061-T6 Aluminum Bar [71-APMW-22] (A).....N 57

**Hoglund, Nils O.** receives Cooper Union School of Engineering and Science Alumni Association's Gano Dunn Medal.....My 88

**Holbertson, Henry A.** named president of the Youngstown Metal Products Co. division of Youngstown Sheet and Tube Co. ....My 88

**Holcomb, W. N.**  
Design and Development of a Boron-Glass-Epoxy Lightweight Composite Gear Case [71-GT-85] (A).....Jl 41

**Holding**  
Creep/Fatigue Interaction Correlation for 304 Stainless Steel Subjected to Strain-Controlled Cycling with Hold Times at Peak Strain [71-PVP-6] (A).....Ag 50

**Holes**  
Stress Concentration in a Cylindrical Shell Containing a Circular Hole [71-PVP-9] (A).....Ag 50

**Stresses in a Pressurized Ribbed Cylindrical Shell with a Reinforced Circular Hole Interrupting a Rib [71-PVP-8] (A).....Ag 51**

**Visual Detection of Holes in Thin Polymeric Films (NTB)**

**Holl, J. William** corecipient of George Wallace Melville Medal at 1970 WAM.....Ja 69, 70

**Holland, J. W.**  
Thermionic Reactor Development [70-WA/Ener-13] (A).....Ap 62

**Hollasch, K.**  
Calibration of Constant-Temperature Hot-Wire Anemometers at Low Velocities in Water with Variable Fluid Temperature [71-HT-9] (A) O 61

**Holliday, G. H.**  
Photoelasticity Applied to Analysis of Tubular Connections for Offshore Structures [71-Pet-27] (A).....D 50

**Hollis, R. Frank** elected Fellow ASME.....F 104

**Holloway, J. H.**  
Tracer Tests for Nuclear Power Plant Steam Turbines (based on 69-WA/PTC-3).....Ja 15

**Holm, C. H.** deceased.....Ag 87

**Holman, J. L. Monte** receives Purdue University's Schools of Engineering "Distinguished Engineering Alumnus" award Je 77; Jl 74

**Holmes, J. T.** deceased.....Ag 87

**Holography**  
Acoustical Holography (BTR).....F 47

**Application of Holographic Techniques to Turbine Disk Vibration [71-Vibr-105] (A).....D 54**

**Applications of Holography to Dynamics: High-Frequency Vibrations of Beams [70-WA/APM-5] (A).....My 57**

**Concealed Weapon Detector (BTR).....S 36**

**Holographic Analysis of Turbine Blades [71-GT-84] (A).....Jl 41**

**Holographic Characterization of Aerospace Components [71-GT-74] (A).....Jl 40**

**Holographic Detection of Microcracks [71-Met-C] (A).....Ag 48**

**The Laser in Aerospace (BTR).....My 43**

**Using Laser Holography for Nondestructive Testing.....Mr 27**

**Holster, J. L.**  
Bellows Vibration with Internal Cryogenic Fluid Flows [71-Vibr-14] (A).....N 49

**Holt, R. C.**  
Design for In-Service Inspection of Boiling Water Reactor Pressure Vessels [71-PVP-59] (A).....S 50

**Holzer, S. N.**  
Response Bounds for Columns with Transient Loads [70-WA/APM-32] (A).....Je 47

**Home Electric Pak**  
See Power Plants

**Homer, C. E.** deceased.....Je 80

**Honami, S.**  
Investigation Concerning the Fluid Flow in the Mixed-Flow Diffuser [71-GT-40] (A).....Jl 38

**Honeycombs**  
Forming Fiberglass Honeycomb Elements (NTB) S 41

**Honorof, E. P.**  
Analysis of Trace Contaminants [71-AV-17] (A) O 56

**Honors**  
AIEE  
Names Gordon B. Carson a Fellow.....Jl 74

**Presents award for Outstanding Achievement in Management to Willard F. Rockwell, Jr. JI 74**

**AMIME**  
Confers honorary membership on James M. Guy Ja 104

**ASEE**  
44th Lammie Gold Medal Award presented to Richard G. Folsom.....O 89

**G. Edwin Burks Award of \$1000 presented to Edward F. Obert.....D 89**

**ASME**  
ASME Medal  
Awarded *in absentia* at 1970 WAM to Robert Rowe Gilruth.....Ja 75

**Presented to Gilruth.....My 87**

**To be presented at 1971 Winter Annual Meeting to Horace Smart Beattie, Jr. S 89**

**Aviation and Space Division's Design Award of 1971 presented to Gerard W. Elverum.....S 92**

**Certificate for initiative and leadership in development of new engineering merit badge for the Boy Scouts of America presented at 1970 WAM to Joseph P. Vidonic.....Ja 75**

**Design Engineering Division's Machine Design Award presented at 1970 WAM to Reynold Benjamin Johnson.....Ja 69, 70**

**Machine Design Award Nominations Sought D 75**

**DGP Meritorious Service Award presented (at 1971 DGP Conference) to John E. Onnen JI 67**

**DGP Speaker Award presented (at 1971 DGP Conference) to Ralph S. Warner.....Jl 67**

**Diesel and Gas Engine Power Award presented (at 1971 DGP Conference) to Melvin I. Helmich.....Jl 67**

# Honors (Continued)

- 50 years of service recognition and ovation at 1970 WAM for Clarence E. Davies, Secretary Emeritus of ASME. . . . . **Ja 72**
- Fluids Engineering Division's Lewis F. Moody Award of 1971 presented to Graham Wallis S 89
- Gas Turbine Power Award presented, 1971, to Carlyle Reid. . . . . **Je 64, 65**
- Heat Transfer Division Memorial Award presented at 1970 WAM to Donald Q. Kern and Robert Siegel. . . . . **Ja 71**
- Heat Transfer National Conference of 1969 Best Paper Award presented at 1970 WAM to G. C. Vliet and C. K. Liu. . . . . **Ja 71**
- Honorary Membership  
Conferred at 1970 WAM on Richard G. Folsom, Martin Golland, William Prager  
Folsom receives award. . . . . **S 91**  
Golland receives award. . . . . **My 68**  
Prager receives award. . . . . **Ja 75**  
To be awarded at 1971 Winter Annual Meeting to Robert A. Bowman, Mylon E. Merchant, Nathan M. Newmark. . . . . **S 89**
- Life Quality Engineering Citation for meritorious technological leadership and achievement presented to Luis A. Ferre. . . . . **Je 77**
- Metropolitan Section of ASME presents leadership awards and fetes Bill Byrne. . . . . **Ja 75**
- Plant Engineering and Maintenance Division presents Guerard Mackey Best Paper Award in 1971 [for paper presented at 1970 PEM Conference] to William S. Gately. . . . . **D 79**
- Prime Movers Committee Award (1971) presented to Paul Leung and Raymond E. Moore D 74, 75, 80
- Regional Faculty Advisor of Year award presented to Charles J. Mers, Jr. . . . . **Ja 105**
- ASTM  
1971 Max Hecht award bestowed on J. Fred Wilkes. . . . . **Ja 104**  
1971 Walter C. Voss Award presented to Everett C. Shuman. . . . . **Ag 85**
- Best Papers Awards  
Heat Transfer National Conference of 1969 Best Paper Award presented at 1970 WAM to G. C. Vliet and C. K. Liu. . . . . **Ja 71**  
Plant Engineering and Maintenance Division presents Guerard Mackey Best Paper Award in 1971 [for paper presented at 1970 PEM Conference] to William S. Gately. . . . . **D 79**  
Reliability and Maintainability 9th Conference (1970) Best Paper Award goes to K. W. Bills, Jr., and H. J. Wiegand. . . . . **S 93**  
Cooper Union School of Engineering and Science Alumni Association awards Gano Dunn Medal to Nils O. Hoglund. . . . . **My 88**  
Drexel University Evening College Alumni Association's 20-Year Award goes to (1971) Jesse LeCoff. . . . . **Ja 74**  
East (Leo H.) Memorial Award presented by Rochester (N. Y.) Engineering Society to "Rochester Engineer of the Year" designee Phil T. Elliott. . . . . **Ap 85**  
Eckman (Donald P.) Award Nominees Sought by American Automatic Control Council. . . . . **My 74**  
Edison Medal, 1971, awarded by IEEE to John W. Simpson. . . . . **Ap 85**  
Egleston (Thomas) Medal awarded by School of Engineering and Applied Science at Columbia University to Raymond D. Mindlin. . . . . **S 97**  
Engineering Society of Detroit's highest membership honor "The Distinguished Member Service Award," of 1971 goes to Clement Freund. . . . . **S 98**  
Gantt (Henry) Memorial Gold Medal Awarded to Frederick R. Kappel. . . . . **Ap 80**  
Guggenheim (Daniel) Award of ASME, SAE, AIAA  
Presented at 1970 WAM to Jakob Ackeret. . . . . **Ja 75**  
1971 recipient to be Archibald Edward Russell S 94
- Hess (Henry) Award presented at 1970 WAM to Thomas I. Geers. . . . . **Ja 74, 75**
- Hoover Medal from ASCE, AIME, ASME, IEEE presented at 1970 WAM to John Erik Jonsson Ja 76
- Kansas State University presents special recognition certificate to M. A. Durland, emeritus dean, College of Engineering. . . . . **Ja 74**
- Lehigh University presents, to Ferdinand P. Beer, the R. R. and E. C. Hillman Award, which goes to the Lehigh faculty member who has done the most toward advancing the interests of the university. . . . . **S 98**
- Main (Charles T.) Award  
Presented at 1970 WAM to Steve H. Woodard Ja 74, 75  
1971 recipient to be James M. Singleton S 34; (ECA). . . . . **N 83**
- Melville (George Wallace) Medal presented at 1970 WAM to J. William Holl and Alain L. Kornhauser. . . . . **Ja 69, 70**
- Navy's Meritorious Civilian Service Award  
Presented to Harold V. Nutt for distinguished service as special assistant for scientific affairs to Commander, U. S. Naval Forces, Vietnam F 101  
Presented to Danos H. Kallas. . . . . **Ag 85**
- Nichols (Percy) Award from AIME Coals Division and ASME Fuels Division presented at 1970 WAM to R. C. Corey. . . . . **Ja 72**
- Offshore Technology Conference Distinguished Achievement Award for Individuals Presented (1971) to Julius A. Stratton. . . . . **Je 55**
- Ohio State University's Centennial Achievement award recipients include Carl W. Hall. . . . . **Ja 104**
- Oldenburger (Rufus) Medal presented at 1970 WAM to John R. Ragasini. . . . . **Ja 70**
- Outstanding Paper Awards:  
Pressure Vessel Technology 1st International Conference (1969) to Thomas Slot. . . . . **Ja 64**  
Pennsylvania State University Honors James L. Everett, III, as Distinguished Alumnus. . . . . **Ja 74**
- Pi Tau Sigma  
Pi Tau Sigma Gold Medal presented at 1970 WAM to Richard E. Barrett. . . . . **Ja 74, 75**  
Call for Pi Tau Sigma Nominations. . . . . **Mr 78**
- Plastics Science and Engineering annual International Award from Society of Plastics Engineers goes to Albert G. H. Diets. . . . . **Je 77**
- Purdue University  
Harry Solberg Award for outstanding undergraduate teaching to Frederick B. Morse Ja 74  
Schools of Engineering "Distinguished Engineering Alumnus" awards go to Thomas W. Head and J. L. Monte Holman. . . . . **Je 77; Ja 74**
- Richards (Charles Russ) Memorial Award presented at 1970 WAM to Ralph G. Nevins Ja 74, 75
- Society of Naval Architects and Marine Engineers Graduate Paper Award to Leonardo Perez y Perez. . . . . **Ja 105**  
Graduate Paper Honor Prize to Joel D. Snyder, III. . . . . **Ja 105**  
Linnard (Capt. Joseph H.) Prize to Frank M. Lewis. . . . . **Ja 105**
- Sperry (Elmer A.) Medal from ASME, IEEE, SAE, SNAME, AIAA presented at 1970 WAM to Charles Stark Draper. . . . . **Ja 76**
- Certificates of citation also presented at 1970 WAM to Deleo Electronics Division of General Motors and Aero Products Division of Litton Systems. . . . . **Ja 76**
- Taylor (J. Hall) Medal presented at 1970 WAM to Bernard F. Langer. . . . . **Ja 69, 70**
- Timoshenko (Stephen P.) Medal presented at 1970 WAM to James Johnston Stoker. . . . . **Ja 73**
- Trent-Crede Award presented by Acoustical Society of America to Raymond D. Mindlin D 80
- University of Cincinnati Distinguished Engineering Alumnus Awards go to Robert M. Goldhoff and Warner L. Stewart. . . . . **Je 78**
- University of Colorado  
Distinguished Alumnus Achievement Award goes to Glenn Murphy. . . . . **Ja 74**  
Engineering Development Council's Distinguished Engineering Alumnus Achievement Awards go to Glenn Murphy and Marcellus S. Merrill. . . . . **Je 78**
- Warner (Worcester Reed) Medal presented at 1970 WAM to Wilhelm Flügge. . . . . **Ja 69, 70**
- Watt (James) International Gold Medal awarded to Dr. Robert R. Gilruth by Institution of Mechanical Engineers of Great Britain (NR). . . . . **D 64**
- Westinghouse (George) Award  
1970 recipient is Robert C. Spencer, Jr. . . . . **S 91**  
1971 recipient to be Wilfred McGregor Hall D 74, 75
- Williston (Arthur L.) Medal and Award  
Presented at 1970 WAM to Steven H. Carlson Ja 74  
Winner for 1971 is James A. Wilms. . . . . **Ag 32**
- World Trade Center Wins Award as "Outstanding Civil Engineering Achievement for 1971" (NB) Je 59
- Hooper, A. T.  
The Stress Analysis of Plates with Single and Clustered Nozzles by the Boundary Point Least Squares Method [71-PVP-20] (A). . . . . **Ag 52**
- Hoover, R. M.  
Noise Abatement in Industry  
Gas Turbine Noise Abatement  
The Sound of Gas-Turbine Installations [70-WA/GT-6] (A). . . . . **Ap 56**
- Hoover Medal  
See Honors
- Hopkins, Bryant L., Jr.  
The Job Problem (C). . . . . **Ja 55**
- Hopson, George D.  
Skylab Environmental Control and Life Support Systems [71-Av-14] (A). . . . . **O 56**
- Horger, O. J.  
Factors Affecting Axle Stresses [70-WA/RR-1] (A). . . . . **Je 42**
- Horlock, J. H.  
On Entropy Production in Adiabatic Flow in Turbomachines [71-FE-3] (A). . . . . **Ag 54**
- Hornell, Duane C. deceased. . . . . **Ja 107**
- Hornbuckle, J. D.  
In-Service Inspection of San Onofre Nuclear Generating Station—Unit 1 [71-PVP-51] (A) S 48
- Hornschuch, Hanns receives Outstanding Leadership Award from Metropolitan Section of ASME. . . . . **Ja 75**
- Hornung, K. G.  
Rolamite—A Tool in Hysteresis Measurement [71-Vibr-27] (A). . . . . **N 50**
- Horowitz, M. S.  
Automatic Checkout of Complex Modules [71-Vibr-115] (A). . . . . **D 55**
- Hottel, H. C.  
Mathematical and Experimental Modeling of the Circulation Patterns in Glass Melts [70-WA/HT-11] (A). . . . . **Ap 59**
- Houghton, Arthur V. named director, Bureau of Engineering Research, University of New Mexico, College of Engineering My 88; named director of university's Eric H. Wang Civil Engineering Research Facility. . . . . **Ag 85**
- Howard, J. H. G.  
Measured and Predicted Flow Near the Exit of a Radial-Flow Impeller [71-GT-15] (A). . . . . **Ag 44**
- Howard, T. W. deceased. . . . . **N 93**
- Howell, R. H.  
Drag Force Measurements of a Compressible Turbulent Boundary Layer on an Adiabatic Smooth Flat Plate [70-WA/FE-26] (A). . . . . **F 74**
- Howes, P. S.  
The Static and Dynamic Behavior of Warren Type Machine Tool Structural Elements [70-WA/Prod-7] (A). . . . . **Mr 60**
- Hoyt, Harlan K. elected Fellow ASME. . . . . **D 81**
- Hoyt, J. W.  
New ASME Freeman Scholars Selected; Reviews to Be Presented at WAM. . . . . **Je 56**
- Hrubecky, H. F.  
Dynamic Behavior of a Switching Jet in a Model Bistable Fluidic Device [70-WA/Flea-20] (A) Je 44
- Hryniewicz, H. W. deceased. . . . . **N 93**
- Hsia, E. S.  
Entrance Development of the Weakly Interacted MHD Plane Channel Flow as Affected by Wall Conductances [71-APM-A] (A). . . . . **O 59**
- Hsia, H. Tao-Sze  
A Criterion for the Combustion Modes in Constant Area Combustors [70-WA/Av-4] (A). . . . . **F 68**
- Hsieh, D. Y.  
Effects of Heat and Mass Transfer on Rayleigh-Taylor Instability [71-FE-7] (A). . . . . **Ag 54**
- Hsing, F. C.  
The Effect of Fluid Inertia on a Porous Thrust Plate—An Analytical Solution [70-Lub-18] (A) Ja 44
- A Qualitative Study of Gas Bearings Operating at High Subsonic and Supersonic Tangential Speeds [71-APM-U] (A). . . . . **O 59**
- Hsu, C. C.  
On Flow Past a Supercavitating Cascade of Cambered Blades [71-FE-6] (A). . . . . **Ag 54**
- Hsu, Chen-Chi  
Falkner-Skan Flows of Power-Law Fluids [71-FE-35] (A). . . . . **S 52**
- Hsu, H.-L. deceased. . . . . **O 91**
- Hsu, K. H.  
Indentation of a Circular Membrane [70-WA/APM-33] (A). . . . . **Je 47**
- Hsu, T. C.  
Strain Histories and Strain Distributions in a Cup Drawing Operation [70-WA/Prod-6] (A) Mr 59
- HTRI  
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**A Generalized Static Model for Fluidic Impact Modulators** [70-WA/Flec-2] (A)..... **Je 43**

**Katz, Sherwin** appointed chief application engineer for Waterman Hydraulics, Div. of Compton, Inc. .... **N 89**

**Katz, W. J.**  
Skimming Oil from Basins and Lagoons [based on 70-Pet-3]..... **Ap 24**

**Kaufman, Theodore J.** deceased..... **Ja 107**

**Kaufman, A.**  
Joining Techniques for Fabrication of Composite Air-Cooled Turbine Blades and Vanes [71-GT-32] (A)..... **Ja 37**

**Kaufman, K. A.**  
Rolamite—A Tool in Hysteresis Measurement [71-Vibr-27] (A)..... **N 50**

**Kaufman, R. E.**  
Operators for the Kinematic Synthesis of Mechanisms by Stretch-Rotation Techniques [70-Mech-70] (A)..... **Ja 54**

**Kavanagh, P.**  
Some Observations on the Velocity Profiles in Fully Developed Viscous Flow in Turbomachines [70-WA/FE-24] (A)..... **F 74**

**Kaye, James W.** deceased..... **My 91**

**Kays, D. D.**  
Development and Application of Mechanically Enhanced Heat-Transfer Surfaces [71-HT-40] (A)..... **N 58**

**Keys, W. M.**  
Experimental Hydrodynamics of the Accelerated Turbulent Boundary Layer With and Without Mass Injection [71-HT-F] (A)..... **N 58**

**Heat Transfer to the Transpired Turbulent Boundary Layer** [71-HT-44] (A)..... **N 58**

**Ke, J. S.**  
Local and Gross Deformations in Cracked Metallic Plates and an Engineering Ductile Fracture Analysis [71-PVP-52] (A)..... **S 48**

**Keaton, R. W.**  
Safety Criteria and Design for an FBR Demonstration Plant [71-NE-17] (A)..... **Ja 44**

**Keck, J. Wylly** receives Fellow ASME certificate..... **Mr 85**

**Keer, L. M.**  
Indentation of an Elastic Layer by an Array of Punches Moving with Steady Velocity [70-WA/APM-30] (A)..... **Je 47**

**Kegg, R. L.**  
Permanent Interest (C)..... **Ag 56**

**Kehrbeg, R. Frank**  
The Energy Dilemma (C)..... **Je 50**

**Kelleher, M.**  
Free Convection from a Vertical Plate with Discontinuous Wall Temperature [71-HT-B] (A) **N 58**

**Kellenberger, W.**  
Should a Flexible Rotor Be Balanced in N or (N + 2) Planes? [71-Vibr-55] (A)..... **N 53**

**Kelley, C. W.**  
Operation Arctic..... **F 12**

**Kellogg (M. W.) Co.**  
SNG Agreement (OS)..... **D 44**

**Kellum, G. B.**  
Signature Analysis of Plant Equipment [71-Pet-14] (A)..... **D 48**

**Kelly, Louis J. (Jack)** receives Fellow ASME certificate **Mr 86**; a vice-president of Bechtel Corp., retires after 40-year career in refinery, chemical, fertilizer, and metallurgical fields—will continue to serve Bechtel as a consultant **D 80**

**Kelly, R. C.** deceased..... **D 83**

**Kelly, W. H.**  
Thermal Control of ATS F & G [71-Av-28] (A) **O 57**

**Kelsey, R. A.**  
The "Johnson-Sea-Link"—The First Deep-Diving Welded Aluminum Submersible [70-WA/Unt-6] (A)..... **Je 45**

**Kelsey, W. H.** deceased..... **My 91**

**Kemper, J. D.**  
Optimum Damping and Stiffness in a Nonlinear Four-Degree-of-Freedom System Subject to Shock Load [70-WA/APM-18] (A)..... **My 58**

**Kempner, J.**  
Web-Stiffened Sandwich Structures [71-APM-8] (A)..... **S 55**

**Kendall, D. P.**  
The Effect of Strain Rate and Temperature on Yielding in Steels [71-Met-R] (A)..... **S 55**

**Kennedy, Verne C., Jr.** accepts position with Hayek Engineering Corp., Zurich, Switzerland, as president of Hayek's American affiliate in Chicago..... **Ap 85**

**Kent, Lawson R.** deceased..... **Mr 88**

**Kenyon, N.**  
Elevated Temperature Properties of Maraging Steel Plates and Welds [71-Met-E] (A)..... **Ag 48**

**Kern, Donald Q.** coreipient at 1970 WAM of Heat Transfer Division Memorial Award **Ja 71**; deceased..... **Je 80**

**Kerka, Donald H.** receives Detroit Section Past-Chairman's Award..... **Ja 104**

**Kersten, L.**  
Computer-Aided Methods to Relate Analytical and Graphical Design of Mechanisms [70-Mech-77] (A)..... **Ja 53**

**Kessel, P. G.**  
Dynamic Response of Cylindrical Shells with Initial Stress and Subjected to General Three-Dimensional Surface Loads [71-APM-12] (A) **S 56**

**Kester, J. D.**  
Noise Abatement in Industry

Gas Turbine Noise Abatement  
Future Trends in Aircraft Engine Noise Research [70-WA/GT-13] (A)..... **Ap 57**

**Kestin, Joseph** elected Fellow ASME..... **D 81**

**The Influence of Turbulence on Mass Transfer from Cylinders** [70-WA/HT-3] (A)..... **Ap 58**

**Ketchie, Edgar M.** elected National Director for Region V of Society of Manufacturing Engineers..... **F 101**

**Kettering (Eugene W.) Engineering and Science Center**  
See Engineering and Science Institute

**Khan, A. R.**  
Heat Transfer from Large Double-Fluted Vertical Tube Evaporators [71-HT-34] (A)..... **N 57**

**Kibler, J. J.**  
Model II Fatigue Crack Propagation [71-Met-J] (A)..... **S 54**

**Kiburz, Jack Y.** named a job development executive with National Alliance of Businessmen **Mr 84**; named St. Louis, Mo., metropolitan area director for the National Alliance of Businessmen..... **F 77**

**Kidd, Alexander** deceased..... **Je 106**

**Kidd, W. E.**  
Low Cost Short Life Gas Turbine Design [71-GT-60] (A)..... **Ja 40**

**Kilaparti, S. R.**  
Combined Helium and Steam Cycle for Nuclear Power Plants [based on 70-WA/NE-3] **Ag 14**

**Combined Cycle (C) (AC)**..... **N 61**

**A Combined Helium and Steam Cycle for Nuclear Power Generation** [70-WA/NE-3] (A) **My 55**

**Kindl, Fred H.** elected Fellow ASME..... **Ja 77**

**Kindley, L. M.**  
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**Kinematics**  
See also Linkages; Mathematics

Differential Displacement Matrices and the Generation of Screw Axis Surfaces in Kinematics [70-Mech-1] (A)..... **Ja 45**

**On Kinematic and Force Analysis of Peaucellier's Linkage** [70-Mech-47] (A)..... **Ja 51**

**Kinematic Models of Spatial Mechanisms** [70-Mech-74] (A)..... **Ja 53**

**Kinematic Synthesis of a Geared Five-Bar Function Generator** [70-Mech-2] (A)..... **Ja 45**

**Kinematic Synthesis of Watt's Mechanism** [70-Mech-50] (A)..... **Ja 51**

**Operators for the Kinematic Synthesis of Mechanisms by Stretch-Rotation Techniques** [70-Mech-70] (A)..... **Ja 54**

**The RSRC Mechanism—Kinematic Analysis and Synthesis of a Constrained Inversion** [70-Mech-83] (A)..... **Ja 54**

**Structural Analysis of Two General Constraint Kinematic Chains and Their Practical Application** [70-Mech-37] (A)..... **Ja 49**

**Kinetics**  
The Kinetic and Thermal Expansion of Vapor Bubbles [71-FE-13] (A)..... **Ag 55**

**Kineto-Elastodynamics**  
Kineto-Elastodynamic Harmonic Analysis of Four-Bar Path Generating Mechanisms [70-Mech-61] (A)..... **Ja 52**

**Kingston, William J.** appointed assistant superintendent of utilities division by Kodak Park Division, Eastman Kodak Co. .... **Ja 105**

**Kinsman, George** receives Professional Achievement Award of Illinois Institute of Technology Alumni Association **Ag 85**; elected to board of directors of American Nuclear Society..... **S 97**

**Kirk, R. G.**  
The Effect of Support Flexibility and Damping on the Synchronous Response of a Single-Mass Flexible Rotor [71-Vibr-72] (A)..... **N 54**

**Kirkby, H. W.**  
12 percent Chromium Steel Disks for Industrial Gas Turbines [71-GT-39] (A)..... **Ja 38**

**Kirkpatrick, Edward T.** named president of Wentworth Institute, Boston, Mass. .... **Ap 86**

**Kirkwood, Arthur C.** deceased..... **Ja 107**

**Kirmser, Philip G.**  
On the Nonlinear Vibrations of Free-Free Beams [70-WA/APM-55] (A)..... **Je 49**

**Kirzenblat, A.**  
Transmission of a Fluidic Signal at Intermediate Distances [70-WA/Flec-15] (A)..... **Je 44**

**Kiser, K. M.**  
Measurement of Sequential Velocity Development in the Aorta [70-WA/BHF-13] (A)..... **Ap 63**

**Kispert, Edwin C.** retires as general manager, Industrial and Marine, Babcock & Wilcox Co. to work toward PhD in engineering at the University of New Hampshire..... **S 97**

**Kitchen, J. W., Jr.**  
Use of Optimization Techniques in Identifying a Shock Absorber: An Elementary Experience in Design Education [71-Vibr-69] (A)..... **N 53**

Klein, E. W.  
Power in the Year 2001 (C).....N 60

Klein, R. E.  
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Klein, R. W.  
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Kleiner, Gilbert N.  
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Kleis, S. J.  
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Kline, K. A.  
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Klossner, J. M.  
Axisymmetric Elasticity Solutions of Spherical  
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Klossner, J. M.  
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Knapp, J. G.  
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Knauss, W. G.  
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Knight, T. W.  
Electrochemical Grinding of Cylindrical Test  
Specimens [71-Prod-11] (A).....Jl 49

Knowles, Dennis H. deceased.....Mr 88

Kobayashi, A. S.  
Large Deformation Analysis of the Arterial Cross  
Section [70-WA/BHF-15] (A).....Ap 63

Kobayashi, Shiro  
Analyses of Axisymmetric Upsetting and Plane-  
Strain Side-Pressing of Solid Cylinders by the  
Finite Element Method [70-WA/Prod-4] (A)  
.....Mr 59

Koch, B. F. deceased.....D 83

Koch, L. J.  
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Koetsler, T.  
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Kohn, A. O.  
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Kohn, W.  
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Elastic Properties of Composite Materials [71-  
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Kolffat, T. D.  
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Kolsky Technique  
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Konrad, A. K.  
An Analytical Investigation of Free Convection  
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Kopecky, J. A.  
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Kopf, J. E.  
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Koplik, B.  
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Shells of Revolution [71-Vibr-7] (A).....N 48

Koppang, R. R.  
A Survey of Nitrogen-Oxides Control Technology  
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Korb, F. B. deceased.....N 93

Kordt, W. H. deceased.....Je 80

Kordyban, E. S.  
An Anaerobic Biochemical Laboratory [71-PVP-  
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Kornhauser, Alain L. coreipient of George  
Wallace Melville Medal at 1970 WAM  
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Korst, H. H.  
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Korstad, R. J.  
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Kotnick, George  
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Kottecamp, E. H.  
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Koubek, J. H.  
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Kountz, K. J.  
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Kovacic, J. M.  
Evaluating Gas Turbines for Process Applica-  
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Kovata, A.  
Fluid Transient Conditions in Condenser Cooling  
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Kramer, David J.  
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Kramer, S. N.  
Kinematic Synthesis of Watt's Mechanism [70-  
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Krasnoff, E.  
An Experimental Study of Rectilinear Jet-Flap  
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Krats, A. P. deceased.....N 93

Kraus, H.  
Shakedown of Pressure Vessels with Ellipsoidal  
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Krause, H. H.  
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Krauter, A. I.  
An Automated Method for Evaluating Truck  
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Kraus, H. H.  
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Kressly, R. H.  
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Closed-Cycle Gas Turbines [71-GT-16] (A) Ag 45

Krishna, Challa  
Optimization of a Face Milling Process by Convex  
Programming [71-Prod-5] (A).....Jl 49

Krishnan, S.  
A Two-Dimensional Analysis of a Heated Free Jet  
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Krolczek, Edward  
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Kromer, William F. deceased.....My 91

Kruger, G. B.  
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Kruger, J. B.  
An Investigation of Springback in Wire Products  
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Krumhansl, J. A.  
Variational Methods for Dispersion Relations and  
Elastic Properties of Composite Materials [71-  
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Kuhn, H. A.  
The Minimum Gage Problem in Thin Strip Rolling  
[70-Lub-24] (A).....Ja 45

Kuhns, William J. receives Outstanding Lead-  
ership Award from Metropolitan Section of  
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Kulicke, Frederick C., Jr. receives Fellow  
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Kumar, Shailendra elected associate member  
of Maryland Society of Professional Engineers  
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Kumpel, F. W.  
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Kuo, C. S.  
Stress Analysis of High Temperature Pyrolysis  
Heater Coil Systems Subjected to Creep and  
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Kuzma, D. C.  
Analysis of Pumping Rings [70-Lub-4] (A).....Ja 42

Kyhl, L. C. deceased.....N 93

Kyokuto Boeki Kaisha, Ltd.  
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Laboratories  
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Lacerenza, Joseph A. receives Outstanding  
Leadership Award from Metropolitan Section  
of ASME.....Jl 75

Lackey, M. E.  
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ing Systems [70-WA/Ener-4] (A).....Ap 61

Lafayette College  
BA Degree in Engineering (EN).....Mr 74

Lagneborg, R.  
A Theoretical Approach to Creep Deformation  
During Intermittent Load [71-Met-F] (A) Ag 48

Lahey, R. T., Jr.  
Mass Flux and Enthalpy Distribution in a Rod  
Bundle for Single- and Two-Phase Flow Con-  
ditions [70-WA/HT-8] (A).....Ap 59

Transient Flow Measurements with Sharp-Edged  
Orifices [71-FE-30] (A).....S 52

Lai, J. L.  
Using Viscoelastic Coatings to Reduce Structure-  
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Vibration and Dynamic Stability of an Axially  
Moving Belt [71-Vibr-31] (A).....N 50

Lakshminarayan, K. S. appointed service  
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Lal, D. N.  
Shear Fatigue Crack Propagation and Shear  
Fracture in a Ductile Steel HY-130 [71-PVP-54]  
(A).....S 50

Lal, G. K.  
Dynamic Expansion of an Open-Ended Tube [71-  
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Lalor, N.  
Noise Abatement in Industry  
Engine Combustion and Noise  
Origins of Reciprocating Engine Noise—Its  
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Lamar University becomes new name, on  
August 23, 1971, of Lamar State College of  
Technology (ECA).....N 83

Lamb, J. P.  
An Approximate Analysis of Gaseous Film Cooling  
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Plastic Deformation Processes [71-Prod-1] (A)  
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Laminar Flow  
The Radiation of Sound from an Airfoil Immersed  
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Variational Method for a Pseudoplastic Fluid in a  
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Theory of Laminated Plates [70-WA/APM-25]  
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Wave Propagation in Viscoelastic Laminates [70-  
WA/APM-40] (A).....Je 47

LaMotte, Homer A. promoted to southwestern  
regional sales manager in Industrial Boiler  
Operations Division, Combustion Engineer-  
ing, Inc. ....D 80

Lamps  
The Solid-State Lamp [based on 71-DE-6].....N 22

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Lance, G. M.  
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Landis, Fred  
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II: Management's Social Responsibilities  
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Landis, John W. elected president of American  
Nuclear Society.....O 89

Landsberg, J. T.  
An Experimental Study of Rectilinear Jet-Flap  
Cascades [71-FE-14] (A).....Ag 55

Lane, C. E. appointed system manager at  
Bailey Meter Co.'s Fluidics Automation  
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Lane, Richard A. deceased.....Ap 88

Lane, Richard K. deceased.....Mr 88

- Lange, R.**  
The Dynamic Response of Blast Shields and Barriercases to Impulsive Loadings [71-PVP-48] (A).....S 48
- Langer, Bernard F.** receives J. Hall Taylor Medal at 1970 WAM.....Ja 69, 70
- Langley, R. A., Jr.**  
Evolution of LMFBR Plant Design for Reliability and Availability [71-NE-3] (A).....Jl 42
- Langlois, W. E.**  
Slow Viscoclastic Flow at Large Distance from an Axis of Symmetry [71-APMW-9] (A).....N 53
- Language**  
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- Langworthy, R. A.**  
Advanced Regenerative Gas Turbine Designs for Lightweight and High Performance [71-GT-67] (A).....Jl 40
- Lankston, R. J.**  
Development and Performance of a Vanadium-Nitrogen Treated Steel for High Strength Pipeline Fittings [71-Pet-18] (A).....D 49
- Lans, Jaime E.**  
Evolution and Technology (C).....Je 51
- Larkin, A. F., Jr.** elected treasurer of CEMA F 101; elected executive vice-president of Rex International Inc.....My 88
- Larsen, P. K.**  
Elastic-Plastic Analysis of Thick-Walled Pressure Vessels with Sharp Discontinuities [71-PVP-23] (A).....Ag 52
- Larsen, R.**  
Determining Critical Speeds of a Crankshaft-Flywheel Assembly for an Outboard Motor [71-Vibr-54] (A).....N 52
- Larson, C. S.**  
Basic Geometric Methods in Helical Lobe Compressor Design [70-WA/FE-23] (A).....F 74
- Laser Technology**  
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Air Bearings for High-Speed Mirrors Rotating in a Vacuum [70-Lub-15] (A).....Ja 43  
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Only a Light Assist (PB).....My 48, 49  
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University Gets Laser Lab (EN).....Mr 74  
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A System of Specification of Lathe Tool Nomenclature [70-WA/Prod-22] (A).....Mr 62
- Latin America**  
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- Laubach, G. E.**  
Life-Support System Design for a 12-Man Solar-Array Space Station [71-Av-12] (A).....O 55
- Laurenson, R. M.**  
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- Lauterbach, G. F.**  
Traveling Waves in Rotating Cylindrical Shells [71-DE-A] (A).....Jl 47
- Lautzenheiser, C. E.**  
In-Service Inspection of San Onofre Nuclear Generating Station  
Unit 1 [71-PVP-51] (A).....S 48  
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- Law, R. M.**  
Evaluation and Development of Engine Components and Accessories with Electrodynamic Shakers [71-DGP-4] (A).....Ag 49
- Lawley, T. J.**  
Flow and Performance Characteristics for Non-Vented Vortex Amplifiers [70-WA/Fics-18] (A) Je 44
- Lawrence, H. B.** deceased.....D 83
- Laxton, J. W.**  
The Role of Chloride in the Corrosion Caused by Flue Gases and Their Deposits [70-WA/CD-1] (A).....Ag 64
- Layers**  
Attenuation of Vibrational Amplitudes Through the Use of Multiple-Layered Damping Treatments [71-Vibr-40] (A).....N 51
- Resonance Response Criteria of a Damped Three-Layered Beam [71-Vibr-102] (A).....D 54**  
**Structural Damping Using a Four Layer Sandwich [71-Vibr-20] (A).....N 49**  
**Using Viscoelastic Coatings to Reduce Structure-Borne Noise into a Fluid [71-Vibr-29] (A).....N 50**
- Layman, A. H.**  
Development of Modern Turbulent-Mass Hot-Mix Plant [71-Pet-28] (A).....D 50
- Layton, Edwin T., Jr. (author)**  
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